A. Cover Sheet *(Attach to front of proposal.)*

1. Specify: [X] agricultural project or [ ] urban project [ ] individual application or [ ] joint application

2. Proposal title—concise but descriptive: Pipelining of Open Canal Channels

3. Principal applicant—organization or affiliation: Merquin County Water District

4. Contact—name, title: Garth A. Pecchenino, District Engineer

5. Mailing address: 118 Park Avenue, Merced CA 95348

6. Telephone: (209) 723-2066

7. Fax: (209) 723-0957

8. E-mail: tfpeng@pacbell.net

9. Funds requested—dollar amount: $ 2,063,000.00

10. Applicant cost share funds pledged—dollar amount: $ Ø

11. Duration—(month/year to month/year): October 2001 to March 2003

12. State Assembly and Senate districts and Congressional district(s) where the project is to be conducted: State Assembly District 26, State Senate District 12, Congressional District 18

13. Location and geographic boundaries of the project: Project is located in Eastern Merced County. The geographical boundaries are the Merced River to the North and the San Joaquin River to the West and South.

14. Name and signature of official representing applicant. By signing below, the applicant declares the following:
    - the truthfulness of all representations in the proposal;
    - the individual signing the form is authorized to submit the application on behalf of the applicant;
    - the applicant will comply with contract terms and conditions identified in Section 11 of this PSP.

Garth A. Pecchenino *(printed name of applicant)*

02/14/01 *(date)*

(signature of applicant)

WATER USE EFFICIENCY PROGRAM

PROPOSAL PACKAGE

PREPARED
For

Merquin County Water District
P.O. Box 218
Stevinson, CA 95374
(209) 634-5060

Project:

Pipelining of Open Canal Channels

Proposed prepared by:

District Engineer
Tolladay, Fremming & Parson
118 Park Ave.
Merced, CA 95348
(209) 723-2066
tfpeng@pacbell.net

WATER USE EFFICIENCY PROGRAM

Proposal Solicitation Package

A. Cover Sheet

B. Scope of Work

1. Executive Summary

The Merquin County Water District (MCWD) is located near the junction of the Merced River and the San Joaquin River, with contractual surface water rights from the Merced River water shed. The agreement for water delivery to the MCWD is with the Stevinson Water District (SWD) and the East Side Canal and Irrigation Company (ESCIC). The water table in the area is very near the surface. Soil productivity is poor in many areas due to salinity problems associated with the high water table. Other areas in the MCWD have alkali soils with a high water table that limits the type of crop production on the land. The primary soil classification for the area would be a sandy loam that is saline-alkali with 0 to 1 percent slopes. The MCWD is a participate in the local groundwater management plan as required by AB 3030, named Merced Area Groundwater Management Pool Interests.

The MCWD has approximately 25 miles of open earthen canal that is use to distribute irrigation water to parcels throughout the District. The MCWD also operates 22 wells within the District to supplement surface water flows during low water years. The remainder of the MCWD Distribution system is constructed of concrete cast in place pipeline. The footage of pipeline is approximately 77,250 feet (14.6 miles).

The proposed project would be to place the exiting open channel distribution facilities into concrete pipelines in the areas with the highest water table levels or in areas that require a short distance of pipeline to complete the piping of the facility. The approximate distance of this replace footage is 25,000 feet.

2. Local, Regional & Bay Delta need for project

The proposed project would eliminate the water losses from the open earthen channel and the losses due to percolation. Another component of loss is the loss through nonproductive evapotranspiration from the plant growth along the canal banks. This entire water savings would reduce the amount of water taken from the

surface supply to meet the individual parcel requirements along those areas of improvement through the completion of the project. This would roll the water back to the diversion from the Merced River and thus reduce that quantity of water from the river.

The local effect by the project would be the reduction of surface water applied to an area of high ground water. The regional effect would be the reduction of surface water diversion from the Merced River. The Bay Delta effect for the project would be the availability of this water for sale to an agency like CalFed for water quality improvements at the Delta.

3. Nature, Scope, and Objectives

The project will encompass the conversation of open earthen channel distribution facilities into closed pipeline distribution system. The size of the project will be approximately 25,000 feet of open canal converted to closed pipeline. The pipeline size for the project is 36-inch diameter pipe. The effected acreage from the project is approximately 600 acres. The objective of the project is to reduce the loss of surface water through the existing open earthen channel canals and improve the water delivery system to the individual parcels affected by the project.

Technical/Scientific Merit, Feasibility, Monitoring, and Assessment

4. Methods, Procedures, and Facilities

The proposed areas to have the installation of the pipeline will be surveyed by a licensed land surveyor. A licensed civil engineer to determine the pipe size for the facility will review this field information and conduct hydraulic analysis. The District manager will be consulted on the water usage for each parcel affected by the project to meet their historical needs. Improvement plans and specifications will be developed for the project and a public bid process will be held to award the construction of the project improvements.

5. Schedule

This portion of the application package to be provided in the next four to five weeks.

6. Monitoring and Assessment

The water sales to the parcels that benefit from the project will be reviewed annually as to their water consumption. This amount of

water consumption will be compared to the historical water consumption for the parcel. The District Engineer shall work with the District Manager to develop a spreadsheet program that will keep this information and make comparisons to the historical data.

C. Outreach, Community Involvement, and Information Transfer

1. Outreach

The community of Stevinson is located within the boundaries of the MCWD. This area is located in Eastern Merced County and Merced County has been identified as one of the economically depressed areas in the State. The benefit to the local residents would be in the form of reduced water costs and labor costs to grow an agricultural crop.

2. Training, Employment, and Capacity Building potential

This type of project would have little or no effect on people or organizations.

3. Information Dissemination

The historical water usage information for the District shall be entered into a spreadsheet based on monthly totals. This information will be use to make comparison to water usage after completion of the project. Report available annually for review from MCWD.

4. Agency Notification

Copies of letters to be sent to impacted parties will be provided in four to six weeks.

D. Qualifications of the Applicants, Cooperators, and Establishment of Partnerships

1. Attached find Resume for District Engineer

2. No external cooperators have been identified at this time.

3. No partnership has been identified at this time.

E. Costs and Benefits

1. Budget Summary

a. Salaries and wage -	none
b. Fringe benefits -	none
c. Supplies -	none
d. Equipment -	none
e. Services or Consultants -	$ 188,000.00
f. Travel -	none
g. Other Direct Costs – Construction	$ 1,875,000
h. Total:	$ 2,063,000

2. Budget Justification

Local contractors shall construct the project after a public bid is conducted to determine the lowest qualified contractor. The estimated cast per lineal foot is $ 65.00 and the cost per control structure is $ 3,000.00. The estimated number of control structures is 50 for the project.

3. Benefit Summary and Breakdown

a. Quantifiable Outcome

The project is located in Sub Region 13 and has the potential to provide for Quantifiable Objectives 147, 157 & 160.

4. Assessment of Costs and Benefits

The project assumption for water savings is 25% of the present flow to the areas to be improved by the project. The projected water savings at this time is 1,200 acre-feet. The present cost to MCWD for second tier water is $25.00 per acre-foot. The savings of funds per year based o this figure would be $ 30,000.00

Over a 50 year life for the project the savings would be $ 1,500,000.00. This figure does not account for the annual savings related to the reduced costs associated with the pipeline as compared to the open canal system. The District is working to determine this annual cost associated with the maintenance of the proposed facilities that would receive the improvements.

F. Matching Funds Commitment Letter

The MCWD has no other agency or individual that plans to contribute funds for this project.

G. Letter of Concurrence from Local Government

Applicant to provide a letter from the Merced County Planning Department as to the concurrence of the project with the General Plan for the County. Letter to be provided in four to six weeks.

H. Environmental Documentation

The proposed project will replace open earthen canals with pipelines and control structures. The proposed alignment of the new facilities is within the limits of the existing facilities. Therefore the likelihood that any negative impacts would occur to the environment is very remote at this point of the process. The Applicant plans to complete an Initial Study on the merits of the project and adopt a Negative or Mitigated Negative Declaration.

Legal Description

&

Map

Of

Merquin County Water District

Summary Table

Of

Project Facilities

&

Pipeline footage

Pipeline Projects

1. Hotel Ditch, 3rd Ave. to 4th Ave.	2,400 LF
2. Hotel Ditch at highway 140	2,000 LF
3. Gooseneck Ditch at Bull Hill	200 LF
4. Hotel Ditch along 4th Ave.	5,500 LF
5. Koch Ditch at Lander Ave.	1,500 LF
6. Highline Canal at highway 140	3,000 LF
7. Lewis Ditch at Lander Ave.	2,900 LF
8. Koch Ditch at Lander Ave. & Lopez	2,000 LF
9. Gooseneck Ditch at 3rd Ave.	2,500 LF
10. Sparle Ditch	2,000 LF
11. Strait Ditch	1,000 LF
Total footage:	25,000 LF

All pipeline project to be 36-inch diameter concrete cast-in-place (CCIP) pipe or HDPE plastic pipe material. Estimated Cost per foot of CCIP pipe is $ 65.00.

GARTH A. PECCHENINO - PROJECT ENGINEER

YEARS OF EXPERIENCE - 12

EDUCATION -BACHELOR OF SCIENCE IN AGRICULTURAL ENGINEERING
CALIFORNIA POLYTECHNIC STATE UNIVERSITY,
SAN LUIS OBISPO, 1987

YEAR FIRST REGISTERED/DISCIPLINE -1991/AGRICULTURAL ENGINEER (CALIFORNIA)
1994/CIVIL ENGINEER (CALIFORNIA)

EXPERIENCE AND QUALIFICATIONS:

As Project Engineer Mr. Pecchenino has been involved in the application process, specification writing and design of new irrigation facilities, water wells, wastewater treatment facilities, and storm drainage facilities. These project activities have included the coordination and approval by Regional Water Quality Control Board, State Department of Water Resources and local governmental agencies. Additionally, Mr. Pecchenino has been involved in the analysis of existing infrastructure for rehabilitation and expansion projects.

Mr. Pecchenino has recently participated in the Merced Water Supply Plan, Atwater Migrant Center, Galen Clark Education Center and numerous other improvement projects related to site development. A major component of all these projects was to develop the infrastructure necessary for the new facilities, including storm water disposal in compliance with local and state standards.

Mr. Pecchenino has participated in the design and development of new storm drainage systems for the communities of Hilmar, Delhi and Winton. These facilities where located in differing conditions that required the replacement of existing distribution system. Along with the development of new disposal facilities, Mr. Pecchenino has participated in the rehabilitation of existing storm drainage facilities and the connection to existing systems by new facilities.

Additional areas of concentration for Mr. Pecchenino have been in the development of preliminary project layout and topographical surveys. This work has involved the coordination with other survey related professionals (aerial photos) and the project Architect.

Mr. Pecchenino presently services as District Engineer for Hilmar County Water District and Merquin Water District.

PROFESSIONAL AFFILIATIONS

- American Society of Agricultural Engineers, Irrigation Water Supply and Conveyance Committee, American Society of Civil Engineers, American Concrete Institute